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Promoting L2 Reading in Less Commonly Taught Languages with Hypertexts

Theresa Catalano, *University of Arizona*

ABSTRACT:

This study explores the use of hypermedia reading texts for the language classroom and more particularly for less commonly taught languages (LCTLs). In the article, I review relevant research on the use of hypertexts in the foreign language classroom and how they can be used to facilitate the teaching of reading. A qualitative study of the use of these hypertexts with Italian university students was conducted, along with an explanation of what hypertexts are available for LCTL teachers currently, and how teachers can create their own hypertexts and implement them in the classroom. The study suggests that although hypertexts have not been proven to improve reading comprehension, they can still be a useful tool in promoting L2 reading.

INTRODUCTION

Finding appropriate and engaging ways to teach reading can be challenging. Teaching reading has many different components such as activating previous knowledge of the subject, introducing new vocabulary, testing comprehension of the main idea, and understanding cultural references. Teachers must incorporate all of these aspects into reading lessons and at the same time motivate students to read on their own. While it is often difficult to find appropriate and interesting reading materials for students of foreign languages, this problem is multiplied for teachers of less commonly taught languages (LCTLs) such as Arabic, Korean, Japanese, Italian, Portuguese, and others. The use of hypermedia texts (or hypertexts) is one way teachers can enhance

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Hypertexts can be utilized not only to clarify, explain, and illustrate the meanings of words and expressions, but also to explain rhetorical, socio/cultural, historical, and other concepts embedded in the text.

the teaching of reading. Hypertexts can be utilized not only to clarify, explain, and illustrate the meanings of words and expressions, but also to explain rhetorical, socio/cultural, historical, and other concepts embedded in the text. This article will provide evidence that hypertexts, if implemented properly, can be a useful tool in the teaching of reading strategies and vocabulary acquisition and will demonstrate how teachers can create, access, and implement hypertexts in their language classrooms in order to promote L2 reading.

BACKGROUND

Hypertexts are texts containing references (links) to additional information and material that can be accessed immediately. In the case of this study, the texts include links to multiple forms of media (thus hypermedia) such as graphics, video, and audio. When students read the texts, they can click on blue words in the text (textual glosses) to see a definition or a picture describing the word, and green buttons (extra-textual glosses) to gain additional information about the text. These links facilitate students' understanding of the texts as shown below in Figure 1.

La mia migliore amica si chiama Lisa e vive a Roma. Noi ci conosciamo da piccole, e sempre facciamo tutto insieme. Lisa è alta, bionda e ha gli occhi blu – una classica italiana vero? Lei è molto bella e quando usciamo i ragazzi sempre la disturbano. Lisa ha 19 anni e ha appena finito la scuola superiore. Adesso sta lavorando al negozio di abbigliamento di sua sorella. Si chiama «Capriccio» e si trova vicino al Vaticano. Fare la commessa è un ottimo lavoro per Lisa visto che le piace un sacco la moda. Lei adora abbinare i vestiti e la sua passione preferita è fare shopping. Quando non sta lavorando o facendo shopping, esce con il suo ragazzo, Corrado, e fanno le passeggiate a Piazza di Spagna o a Villa Borghese. Qualche volta esco con loro e andiamo a prendere un gelato insieme o vedere un film. Lisa è un'amica fantastica perché quando ho bisogno di qualcosa, lei sempre mi aiuta. Ci raccontiamo tutto e lei mi dà consigli su che vestiti devo mettere. Lisa è figlia unica, quindi per lei sono la sorella che non ha mai avuto. Spero che siamo amiche per sempre.

Vatican - home of the pope

What is the Piazza di Spagna? What is la passeggiata? What is the Villa Borghese?

Figure 1. An example of an Italian Hypertext

Current models of reading demonstrate that efficient readers are able to successfully coordinate both bottom-up and top-down reading processes (Anderson, 2003 as cited in Usó-Juan & Ruiz-Madrid, 2009, p. 73). Bottom-up skills refer to using

knowledge of the language to interpret lexical and syntactic structures. These skills constitute the decoding of written symbols, starting with smaller segments, syllables, and words, and proceeding to larger units — clauses, sentences, and paragraphs. Alternately, top-down processes focus primarily on text gist, background knowledge, or discourse organization and are associated with attending to higher level cues. Examples of commonly identified top-down strategies include recognizing main ideas, integrating scattered information, drawing on inference or recognizing text structure, among others (Usó-Juan & Ruiz-Madrid, 2009, p. 60). In the hypertexts created for this study, both textual glosses (bottom-up) and extra-textual glosses (top-down) were incorporated into each text.

The Mental Effort Hypothesis (Hulstijn, 1992) provides another basis for the use of hypertext and hypermedia glosses. This hypothesis claims “when students want to increase their vocabulary or have to learn new words for a test, they invest the necessary mental effort and memorize the words until they know their meanings” (Koren, 1999). Therefore, if readers exert more effort into processing new words, this new information learned will then go into long-term memory depending on the amount of processing required when the word was encountered. Incidental learning, in contrast, does not involve a conscious effort to learn vocabulary. This learning “just happens” (but not often). That is to say, “the number of new words learnt incidentally is relatively small compared to the number of words that can be learned intentionally” (Koren, 1999). With incidental learning, learners are able to acquire vocabulary through exposure to words in meaningful contexts, without conscious effort, and as a consequence of accomplishing a task such as reading for pleasure (Laufer & Hulstijn, 2001). Unfortunately, incidental vocabulary learning is a slow process because students do not pay attention to words they do not know, skip over them, are not exposed to the words enough to learn them, or do not retain the meaning of the words (Hulstijn, Hollander, & Greidanus, 1996; Rott, Williams, & Cameron, 2002). If there is minimal effort and processing, then the word is more likely not to be kept in long-term memory and is likely not to be acquired (Laufer & Hulstijn, 2001; Rott et al., 2002). Because hypertext and hypermedia glosses provide information about words and expressions, at the same time requiring some effort on the part of the reader, they may promote incidental vocabulary learning.

Several other important theories that provide a theoretical basis for the creation of hypermedia reading texts are Paivio's (1990) Dual Coding Theory and Mayer's (2001) Generative Theory of Multimedia Learning. Paivio's Dual Coding Theory of cognition posits that verbal and non-verbal (visual) information is processed differently and represented separately during processing. In addition, both verbal and non-verbal representations are used to organize incoming input into knowledge that can be stored and retrieved for future use. Mayer suggests that when this verbal and visual input are provided through a multimedia presentation, the learner chooses relevant information, words, and images, and organizes them separately into verbal and visual models (Mayer, 2001, p. 41). Connections are then

...when [...] verbal and visual input are provided through a multimedia presentation, the learner chooses relevant information, words, and images, and organizes them separately into verbal and visual models

established to create a coherent mental structure. In the verbal model, discrete, linear information is provided, while in the visual model, holistic nonlinear information is given. Learning takes place when the two models are integrated into the knowledge structures already in memory (Mayer, 2001). Mayer also proposes that since verbal and visual information are processed separately, interaction between the two channels can cause information to transfer from one to the other, and learners will be actively involved in the construction of knowledge. This implies that providing both visual and verbal glosses in a reading text that allows readers to be actively involved (by clicking on the words) can facilitate processing. However, Mayer also suggests that each channel has a limited capacity, and that information must be presented in a way that does not overload working memory.

Much research has been carried out on the effects of hypertexts on reading comprehension and vocabulary learning. With regard to vocabulary learning and acquisition, studies have suggested beneficial effects of providing visual and verbal glosses at the same time. For example, Plass, Chun, and Leutner (1998) found that students performed better on vocabulary posttests when they selected verbal and visual annotations as opposed to just one mode of information (Ariew, Ercetin, & Cooledge, 2008). When they did not select any annotations their performance was worse. In addition, Chun and Plass (1996) found that learners of Spanish did better on vocabulary tests when they used glosses with text plus pictures as opposed to text-only glosses or glosses with text plus videos. The positive effects of providing verbal and visual (pictures or video or both) information together on vocabulary learning and evidence for multiple representations of information have been confirmed in more recent studies (Plass, Chun, Mayer, & Leutner, 2003; Yeh & Wang, 2003; Yoshi & Flaitz, 2002) as well.

According to Ariew et al. (2008), “the link between hypertext annotation and comprehension is elusive.” In a study conducted by Ariew and Ercetin (2004), data were collected from 84 intermediate- and advanced-level adult English as a Second Language (ESL) learners using a tracking tool that recorded the amount of time readers spent on a given annotation. This tracking device was used to keep a record of the types of annotations the reader chose to view, the amount of time the reader spent on viewing the annotations, and the number of times the annotations were accessed. Results showed that annotation use did not facilitate reading comprehension for either group, while prior knowledge (knowledge the reader has about the subject before reading the text) had a significant positive impact on reading comprehension for both groups. However, for the intermediate group, there was a significant negative relationship between reading comprehension and the time spent on video annotations. The authors proposed that this was caused by what is referred to as the “short-circuit hypothesis” (Clarke, 1988), which claims that limited proficiency can lead to the use of poor reading strategies: the intermediate group relied too much on the video annotations to understand the text whereas the advanced learners combined other learning strategies with the annotations and consequently did better on the comprehension test.

Although overall quantitative analysis from Ariew and Ercetin’s study (2004) did not demonstrate improvement in reading comprehension due to the annotations, qualitative analysis revealed that participants perceived the annotations to be useful and

that they had a positive impact on their attitudes toward reading on the computer. In a similar study conducted by Sakar and Ercetin (2005) in Turkey, participants were given a reading comprehension test that they completed while they read a text. Participants took notes while reading and used their notes while answering the comprehension questions and did not have access to the text. Qualitative data indicated that pronunciations of words were preferred significantly less and videos were preferred significantly more than all other types of annotations. Thus, the learners consistently preferred visual information (i.e., graphics and/or videos), which suggests that participants perceived visual annotations to be most vital for text comprehension. Interviews showed that most participants considered visual annotations to be important because they were interesting and motivating. However, the investigation of the relationship between reading comprehension and annotation use showed a negative correlation of reading comprehension with the frequency of access to annotations and the amount of time spent on annotations. Another recent study conducted in Turkey investigated the effects of types of multimedia learning on advanced learners (Akbulut, 2005 as cited in Ariew & Ercetin, 2008). While results showed positive effects of annotations on vocabulary learning, again, there was no significant difference found between the two groups tested in terms of reading comprehension scores.

Several recent studies support the above findings but also report other benefits of hypermedia texts. According to Usó-Juan and Ruiz-Madrid's (2009) study of English language learners, hyper-readings foster the use of more top-down and bottom-up strategies while demonstrating no effect on reading comprehension. In addition, when given the choice between an on-screen or paper version of the text, 68% of participants preferred the online option. In Abraham's (2008) meta-analysis of 11 studies of computer-mediated glosses in second language reading comprehension and incidental vocabulary learning, evidence was provided for the beneficial role of computer mediated text glosses in providing lexical support on comprehension of authentic L2 readings and vocabulary learning. A final study by Zumbach (2006) demonstrates that learners who prefer an active, problem-oriented and self-directed way of learning benefit from the less-structured hypermedia learning environment.

HYPERTEXTS AND LESS COMMONLY TAUGHT LANGUAGES

Research so far has been able to demonstrate that there are many benefits of the use of hypermedia for second language (L2) reading. While there is little evidence that hypertexts improve reading comprehension, the benefits of student enjoyment and increased vocabulary learning and the application of strategies are good reasons to use such texts, and students generally feel that they benefit from them. This is important because if students believe that the hypertexts are helping them learn the language, they may then spend more time reading and thus improve their reading as a by-product. According to Rifkin (2003), if "more of the students will be sufficiently engaged and energized in the learning

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process to want to continue for a longer period of time...students will thus attain higher proficiency levels in one or more modalities than they would have if they had stopped the learning process earlier” (p. 53). Rifkin lists this as an affective goal that leads indirectly to a cognitive goal and includes this as one criterion to justify the use of technology in the classroom.

Another reason for the creation of hypertexts by teachers of LCTLs is that original materials selected and prepared for classroom use are rare for many LCTLs. While language teachers of Spanish or other commonly taught languages have numerous options for finding reading texts or hypertexts, LCTL teachers do not. LCTL teachers who have the know-how and the time to create their own hypertexts can do so (more on this later) but many teachers prefer to have access to ready-to-use ones. There are a few free sites available with reading texts for practice, some of which are hypertexts, but the quality is variable and they are usually aimed at beginners (see www.iluss.it for Italian, <http://learningchineseonline.net/> for Chinese, and www.shariahprogram.ca for Arabic). For this reason, the Center for Educational Resources, Culture, Language and Literacy (CERCLL) at the University of Arizona has undertaken a Hypermedia Project for LCTL languages. CERCLL is a Title VI Language Resource Center funded by the U.S. Department of Education. It focuses on culture, language, and literacy in LCTLs and is associated with the University of Arizona’s Second Language Acquisition and Teaching (SLAT) Program. Hypertexts are currently available on the project’s website for Italian, and hypertexts in Arabic were made available in late 2010 with plans for German and Portuguese in the future. CERCLL is collaborating with NMEELRC (National Middle East Language Resource Center) at Brigham Young University to make software available for hypermedia creation in a broader range of languages, including a version for Chinese and Japanese, and these texts will be available in the near future.

Currently L2 Italian texts (four for each of three proficiency levels) are available on the website for free use by instructors. Additional materials were created to accompany one Italian text (pre- and post-reading activities) for each level. These materials (to be discussed in detail later) while ready-to-use, have been made to serve as examples/suggestions for how teachers can create lesson plans based on the reading texts. To access the texts and their materials, visit <http://www.hypermedia.cercll.arizona.edu> or go to CERCLL’s homepage at www.cercll.arizona.edu and click on PROJECTS, then HYPERMEDIA.

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THE CERCLL TEXTS

Studies on hypermedia texts suggest that the design and implementation of hypermedia or hypertext materials are important factors in reading comprehension. The manner of access of annotations, their presentation, and the way the software behaves may also have an impact on readers’ comprehension (Ariew, Ercetin, & Cooledge, 2008, p. 61). Therefore, it is necessary to explain in detail the types of texts available and the possible ways in which they could be implemented in the classroom.

Promoting L2 Reading in Less Commonly Taught Languages with Hypertexts

The twelve Italian texts currently available on the website¹ (see Appendix B for English translations of the texts that appear in this article) are divided into three levels: beginning, intermediate, and advanced. The texts are meant to be used by students as homework or extra practice, and students may use their home computers or those in the the lab to do so.

The beginning, intermediate, and advanced levels are rough indicators of the level of difficulty of the texts.² The beginning texts are based on popular themes for beginning students such as eating at a restaurant (an actual menu is the text), describing a friend and her hobbies, writing to a pen pal about his/her hometown and its problems, and a Facebook page of an Italian university student. Each text is about a computer screen in length and includes one pre-reading activity that provides contextualization. This serves to tap into the learner's prior knowledge as research has shown this to be extremely important in top-down processing (Devine, 1988). Additionally, each text is followed by a "gisting" activity in which students demonstrate their comprehension of the main idea of the text. The variety of other available pre- and post-reading activities will be discussed in detail later.

Intermediate texts consist of a description of an unusual festival in Italy, an interview with two famous showgirls (known as *le veline* in Italy), a popular Italian singer's autobiography (Tiziano Ferro), and a young Italian soccer star (Mario Balotelli). Finally, the advanced texts include the story of Barack Obama's inauguration as viewed by Italians; two excerpts from Tahar Lamri's *I sessanta nomi dell'amore*, a collection of stories based on the life of immigrants living in Italy; and the true story of an Italian student studying at the University of Arizona. All texts are original and created by CERCLL hypermedia staff and friends, with the exception of Tahar Lamri's work and the transcript of the interview with the showgirls, both used with permission. Visit <http://hypermedia.cercll.arizona.edu/Students.php> to view the texts in detail.

The glosses consist of textual glosses (blue words in the text) and extra-textual glosses (green buttons). Students can click on the glossed words as they read. The blue words were decided on by distributing sample texts to random students at the appropriate level and asking them to circle the words they did not know. If the words were concrete and easy to identify through a picture (i.e., *gelato* [ice cream]), graphics were chosen to accompany a definition in English. If the words were more abstract concepts (i.e., *discorso* [speech]), the words were annotated only with text (the definition in English). As a result, when students click on the blue words they may see the definition in English (see Figures 2 and 3 on the next page).

The glosses take into account current models of reading (mentioned earlier) that incorporate bottom-up and top-down processing. To incorporate top-down processing, extra-textual glosses were provided. When students click on the green buttons to the right of and below the text, they are accessing extra information about the text that includes rhetorical, socio/cultural, historical, and other concepts embedded in the text (see Figure 4 on page 9).

Students can access the texts through the web site. Additional pre- and post-reading activities are suggested in the teacher section of the website. These activities prepare students for reading and provide additional comprehension and expression activities after reading. Teachers can choose pre- and post-reading materials to accompany one

10 gennaio, 2009

Cara Tylee,

Ciao Tylee, *come va?* Mi piace il tuo nome – è originale. Mi chiamo Mario Rossi e *vivo* a Raiano. Raiano è un *piccolo paese* negli *Appennini* in *Abruzzo*, ed è molto bello. La mia famiglia è composta da cinque persone: mio padre, mia madre, le mie *sorelle* e io. Le mie sorelle sono *più* grandi di me. La *più grande* vive a *Roma* e studia all'università *La Sapienza*. L'altra sorella lavora al supermercato qui a Raiano. Io *vado pazzo* per il calcio e *gioco* ogni giorno con i miei amici.

Appartengo a una squadra che non *vince mai* ma mi piace ancora. Io mi *alleno* quattro volte alla settimana e sono molto occupato ma ancora *trovo* il tempo per studiare. Nel mio paese ci sono *tanti* immigrati, molti di cui sono *clandestini*. Purtroppo molti vivono in *povertà*. *Siccome* è molto difficile *ottenere* un *permesso di lavoro*, spesso lavorano come *venditori di strada*. Io penso che *sia* una situazione molto triste. Ci sono molti immigrati nella tua città? *Da dove* vengono?

Che pensi di questo argomento?

Scrivimi presto,
Mario

I live

Where do immigrants in Italy come from?

Figure 2. Student has clicked on the word *vivo* [I live]. A text gloss appears in the blue box.

Or, they may see the text and an accompanying graphic:

La Trattoria Teresa *si trova* nel *cuore dell'* *Abruzzo* 20 km da Teramo.

Chi arriva alla Trattoria Teresa ha l'opportunità di *gustare* una *cucina* tradizionale e tipicamente *abruzzese*, fatta di prodotti caserecci e di *alta* qualità.


La *scelta* e la preparazione dei *piatti* è *svolta* dalla signora Teresa (*da cui* il ristorante *prende* il nome) e lo chef Luigi che, *malgrado* la sua *giovane età*, è famoso in tutta la regione per *vincere* numerosi *concorsi gastronomici*.

Il nostro locale spazioso e *ben arredato* è *capace di* *ospitare* *oltre* 100 persone ed è perfetto per una *cena* romantica, o cene con gli amici, ma è anche ideale per feste private, cene *aziendali*, eventi particolari o *banchetti*.

Ecco il nostro menù:

Antipasti:
Bruschette *miste*
Tagliere di insaccati abruzzesi
Ricotta *caprino* su radicchio
Mozzarella di bufala
Verdure *gratinate* e *grigliate*

Primi piatti:



coldcuts

Figure 3. Student has clicked on the word *insaccati* [cold cuts]. An image appears as well as a text gloss.

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text from each level of the Italian texts. The three texts that include accompanying materials are *Il Menù*, (a real menu from an Italian restaurant), *Festa* (the story of a festival in Italy), and *Un Italiano a Tucson* (the story of an Italian student studying at the University of Arizona) (follow this link to find the texts: <http://hypermedia.cercll.arizona.edu/Students.php>). The pre-reading materials (located by clicking on the PRE (pre-reading) button on the website or <http://hypermedia.cercll.arizona.edu/teachers.php>) are meant to be used before the students read the texts (during class time), and they include vocabulary, grammar, culture, and expressions. Teachers can preview the materials, and then decide if they want to download and use them in their actual lesson plans. The materials come with handouts and include PowerPoints for in class presentations. If teachers do not have access to a projector to show PowerPoint presentations, alternative suggestions are included (such as the use of an overhead projector, or of a chalk/whiteboard). Some examples of pre-reading activities include the game of Jeopardy (with vocabulary words from the text); videos from www.youtube.com that go along with the texts; games involving student movement, art and music; grammar practice explanations and exercises and dialogs (see <http://hypermedia.cercll.arizona.edu/pre.php> for details). Post-reading activities (<http://hypermedia.cercll.arizona.edu/post.php>) include creating posters, commercials, comprehension questions, blogs, the creation of student-made songs/raps, artwork, and discussion questions and games. Although activities have only been created for some of the Italian texts, teachers can apply the examples provided to their own texts.

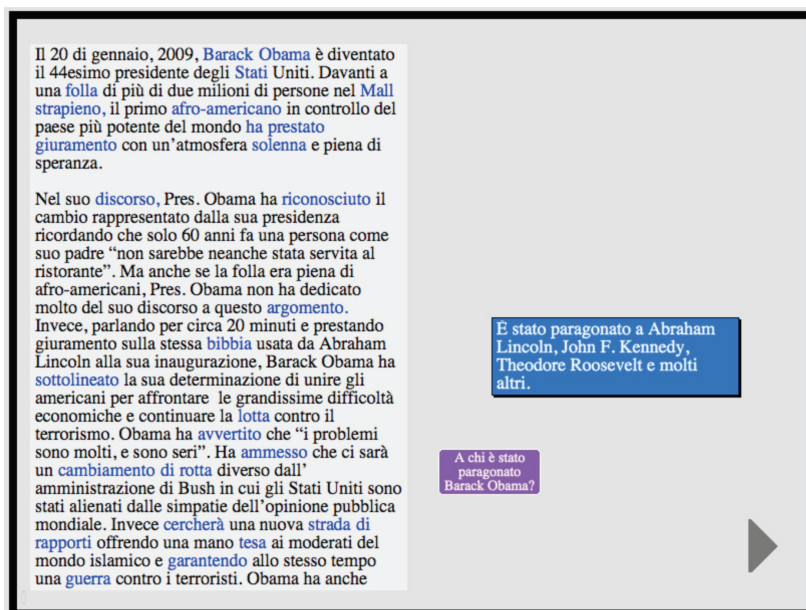


Figure 4. Student has clicked on the button in the middle of the screen. Additional information appears in the blue box.

The texts (*Menù*, *Festa*, and *Italiano*) also feature more pre- and post-reading activities incorporated into the hypermedia (see <http://hypermedia.cercll.arizona.edu/Students.php>). Instead of just introducing the theme, these texts provide cultural information with some of the new words available in the target language with audio glosses so students can hear them.

Cultural References Click on the blue words to hear them pronounced.

In Italy, those who want to enjoy a good meal go to a restaurant or trattoria that specializes in homemade (**caserecci**) products. When ordering a meal in Italy, the appetizer (**antipasto**) is ordered first, and can be anything from marinated vegetables (**verdure**) to cold cuts (**insaccati**) or toasted bread with tomatoes

Figure 5. Cultural References

This is followed by more new vocabulary words with accompanying audio and pictures.

Fruit and vegetables Click on the blue words to hear them pronounced.

la macedonia
fruit salad



le fragole
strawberries



Figure 6. New Vocabulary Words

After reading these three texts, students are able to answer more multiple-choice questions about the text and complete a summary type activity online.

THE PILOT STUDY AND EVALUATION OF THE HYPERMEDIA TEXTS³

The beginning Italian hypertexts were piloted in May 2009 at the University of Arizona. Participants were students of four different Italian 101 and 102 classes, and the total number of participants was 73. Students were assigned homework to complete one of the beginning texts (of their choice) and accompanying pre- and post-reading materials, and then to fill out an online evaluation questionnaire. The evaluation form included instructions on how to access the hypermedia reading materials and the

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Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5	Total Agree	Neutral	Total Disagree
1. The texts were interesting.	0%	4%	32%	53%	11%	64%	32%	4%
2. The materials helped me improve my Italian.	0%	8.2%	28.8%	41%	0%	63%	28.8%	8.2%
3. The materials were easy to understand and use.	1.4%	4.1%	16.4%	27.4%	50.7%	78%	16.4%	5.5%
4. The materials were fun and engaging.	1.5%	6.8%	38.4%	38.4%	15.1%	53.5%	38.4%	8%
5. The materials were challenging.	5%	18%	34%	33%	10%	43%	34%	23%
6. The program was easy to use.	2.7%	2.7%	13.7%	24.7%	56.2%	80%	13.7%	5%
7. I had no trouble getting the program to work.	17.8%	9.6%	13.7%	16.4%	42.5%	59%	13.7%	27%

evaluation questionnaire. The questionnaire included items rating the hypermedia texts on a scale from 1 (strongly disagree) to 5 (strongly agree).

EVALUATION RESULTS

Although the results of these evaluations can in no way attest to the effectiveness of the hypermedia texts, they can attest to the usefulness of the materials in motivating students to read. The majority of students agreed that the texts were interesting (64%) and that they improved their Italian by using them (63%). Students also said they were easy to understand and use (78%) and were fun and engaging (53.5%); they had no trouble getting the program to work (59%). The students who did say they had trouble getting the program to work commented that their problems were due to not having the required plug-in for their browser. While only 43% of the students agreed that the materials were challenging, answers to number (8) and (9) (to be discussed shortly) revealed that it was not the texts that were not challenging, but the accompanying questions. Students wanted more comprehension questions, and they wanted them to be more difficult. As a result, the accompanying materials designed later for the classroom included a larger number of more difficult comprehension questions. Questions (6) and (7) were comments made by the students as to what they liked and

what suggestions they had for improvement. A summary of the comments is listed below:

What They Liked:

It was easy for me to understand.

The Facebook page.

Clicking on the blue words/ the pictures/ the definition function

The texts were of a variety of subjects and related to everyday lives/ the texts were relevant/ the content/ use of everyday common language/ words I use in my own speech

How helpful it was/ I liked how it actually helped me with my Italian, I enjoyed it.

Learning new vocabulary

It had a personal feel to it.

The interactive text/ the interactiveness of the program

You had a chance to think about the answer and how it translates in Italian.

It was helpful to keep the flow of reading and not have to stop to look up a word or give up.

Suggestions For Improvement:

Too many definitions

Not enough definitions/ need more translations

More challenging questions at the end/ more questions/ more difficult questions

Website difficult to get to/ trouble loading the program/ it took forever to load/ make easier to use

Better page design

Run mouse over blue words instead of clicking

The comments revealed numerous things that students liked about the hypertexts. First, many students commented that they enjoyed clicking on the blue words to get the picture or definition and the fact that they did not have to stop the “flow of reading” to look up a words. Second, many students noted that they enjoyed learning new vocabulary and words they use in normal speech as well as the fact that the texts related to their everyday lives. In general, students perceived that the texts helped them learn Italian and they enjoyed its interactivity. On the other hand, as mentioned earlier, some students commented on the need to improve the design of the template and include more challenging questions, and some students had trouble downloading the program and using the plug-ins.

Overall, students thought that they benefitted greatly from the use of the hypertexts and enjoyed using them as long as they did not have trouble getting them to work. However, many students commented on the texts themselves and it is the combination of high quality, authentic texts, and the use of the hypermedia that they enjoyed. Had the texts themselves not been good, results might have been different. Therefore, we can conclude that hypertexts can be useful tools in teaching L2 reading, in particular for LCTLs that do not have as many materials available for students, but the quality of the hypertexts themselves makes a difference.

CREATING YOUR OWN HYPERMEDIA TEXTS

Teachers can of course, create their own hypertext/hypermedia documents in the same way they create web pages. A hyperlink can lead to a gloss in any language. The disadvantage of this method is that students must navigate away from the document to the gloss while reading. Using a hypermedia text editor (HME) avoids this issue. The free FLAn (Foreign Language Annotator) found on the site <http://redhotwords.com>, is an alternative to hyperlinks and can be used by teachers to create their own hypertexts. This site provides easy-to-use directions and tutorials for inserting texts and creating glosses using the FLAn. Previous versions of FLAn supported only roman character sets; however, as of September, 2010, there are new versions that support a broader range of languages, including a version for Chinese and Japanese. In addition, as mentioned earlier, CERCLL (in collaboration with Brigham Young University) will make software available for Chinese and Japanese texts (as well as others) in the near future.

Regarding the creation of the actual stories/readings, it is important to choose texts that students can relate to, and that they feel are relevant to their everyday lives. Many of the students commented that the CERCLL texts contained language they could find/use in everyday life, and that there was a variety of subjects. Even presentation of a Facebook profile page was fascinating to students. For teachers creating readings for their own classes, it may be useful to look for blogs about subjects the students are studying on the web to get ideas, and to do Google searches by typing in specific phrases in quotations (e.g.—“a good movie I saw”). When using pictures or texts adapted from the web, it is important to avoid issues of copyright infringement. This can be done by avoiding copyrighted graphics or text, or by simply writing to the authors for permission to use them.

Regarding the creation of the actual stories/readings, it is important to choose texts that students can relate to, and that they feel are relevant to their everyday lives.

Another aspect of designing one's own hypermedia reading materials is deciding which words to gloss and how many of them to gloss. Generally, since beginning readers benefit the most from passive looking-up behaviors (Xu, 2009) it is a good idea to gloss a large number of words for beginners, and a much smaller number for advanced students. In order to find out which words should be glossed, teachers should distribute a copy of the plain text to students, and ask them to circle or underline the words they do not know. Teachers should then choose the words that were circled by the majority of the students.

CLASSROOM INTEGRATION

Lastly, the design of the accompanying pre- and post-reading materials is important in order for teachers to be able to properly integrate the reading texts into their units of study. Pre-reading materials need to introduce new vocabulary and grammatical concepts, and use them in context. Additionally, they should activate prior knowledge of the subject matter and can include games, videos, artwork, and PowerPoint presentations. Post-reading materials should include activities to find the main idea (gist), summarize the material, answer comprehension questions, and give their reactions to the reading (expressions), and create their own texts (pastiche).

Teachers may use the hypertexts in several ways. The first way is to simply assign the readings as extra practice that accompanies a particular chapter or unit theme. For example, in the case of the Italian hypertexts, students were assigned the text *Menù* while working on the unit on food. They were then asked to create their own menus with a partner and bring them to class the next day using the hypertext as an example. Of course teachers could have just assigned them any website with menus, but because students were beginners, the hypertext helped them read without getting frustrated by not knowing enough words. Another example is with the text *Amica* [friend]. At the time of this assignment, students had just finished learning about adjective agreement. They were assigned the hypertext *Amica* and were then asked to write in their journals about their best friend. Students used the text as a model for their own writing. Again, one could argue that a printed text could do the same thing, but one needs to consider the fact that many of today's students prefer doing things online, or at least having the option of not always using printed texts, and thus were more likely to complete the assignment. Teachers were aware that students did the reading because they tended to use words and phrases in their writing that they adopted from the hypertext (not to mention the few that just copied directly from the hypertext).

A second way to incorporate the hypertexts that focuses on reading strategies is to use the pre- and post- activities in class. Teachers should introduce the text with selected pre-reading activities in class and then assign the text for homework (or complete the text together in a computer lab if available or with students' laptops if they have them). The following day selected post-reading activities would be completed in class. Using the texts in this way maximizes their benefit by activating prior knowledge, facilitating vocabulary and grammar acquisition, and comprehension of the texts. Certainly teachers do not have time to spend two whole days on a reading every week but even once a month (depending on the frequency of the class) would be an excellent way to make sure that reading skills are being fostered in the classroom.

CONCLUSION

This paper has identified how hypertexts can be useful tools in teaching L2 reading, and how LCTL teachers can either create their own materials or access the www.cercll.arizona.edu website to obtain ready-to-use hypertexts and accompanying materials for Italian and Arabic as well as other LCTL languages in the near future. In addition, teachers must understand that more important than what technology they use in class is how it is implemented. Teachers should create reading lessons that incorporate technology and at the same time, be careful to include pre- and post-reading activities designed to maximize the benefits of the hypertexts or integrate them into classroom units or themes as extra practice.

While the research reviewed for this paper does not demonstrate that hypermedia texts improve reading comprehension, it has demonstrated that they can facilitate vocabulary acquisition, improve use of reading strategies, and that students prefer them to paper texts. This in turn results in improved motivation and attitudes about reading in a foreign language. Results from this study support the fact that students enjoy hypertexts and that they foster a favorable attitude of L2 reading and can be useful for LCTL teachers who have a hard time finding reading materials for their

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classroom. Since many teachers are often searching for activities that students find engaging, good hypertexts can provide an interesting and fun alternative to textbook texts and aid LCTLs in promoting L2 reading.

NOTES:

1. The Adobe Shockwave plug-in is necessary to download these texts from the CERCLL website and Firefox is the preferred browser.
2. Criteria for determining the level of texts was determined by the author (an experienced Italian teacher) after consulting the appropriate textbooks to determine the vocabulary and grammatical structures covered for each level.
3. A copy of the questionnaire given to students can be found in Appendix A.

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APPENDIX A

CERCLL Hypermedia Reading Project Italian Materials evaluation form

Circle the number that best corresponds with how you feel about the reading materials:

The texts were interesting.

strongly disagree 1 2 3 4 5 strongly agree

The materials helped me improve my Italian.

strongly disagree 1 2 3 4 5 strongly agree

The materials were easy to understand and use.

strongly disagree 1 2 3 4 5 strongly agree

The materials were fun and engaging.

strongly disagree 1 2 3 4 5 strongly agree

The materials were challenging.

strongly disagree 1 2 3 4 5 strongly agree

What I liked most was:

Suggestions for improvement of the materials:

APPENDIX B

TRANSLATIONS OF SCREEN SHOT TEXTS

Figure 1. Translation of *Amica* [Friend]

My best friend's name is Lisa and she lives in Rome. We have known each other since we were young and we always do everything together. Lisa is tall, blond, and has blue eyes – a classic Italian right? She is very beautiful and when we go out boys always bother her. Lisa is 19 and just finished high school. Now she works in her sister's clothing store. The store's name is "Capriccio" and it's near the Vatican. Being a salesperson is an optimal job for Lisa given that she loves fashion. She adores matching up outfits and her favorite passion is shopping. When she isn't working or shopping she goes out with her boyfriend, Corrado, and they take walks at the Spanish Steps or Villa Borghese. Sometimes I go out with them and we have ice cream together or go see a movie. Lisa is a fantastic friend because whenever I need something she always helps me. Lisa is an only child, so for her, I'm the sister she never had.

I hope we are friends forever.

Figure 2. Translation of *Amici di Penna* [Pen Pals]

Dear Tylee,

Hi Tylee, how's it going? I like your name – it's original. I'm Mario Rossi and I live in Raiano. Raiano is a small town in the Appenine Mountains in Abruzzo, and it's very beautiful. My family is made up of five people: my father, my mother, my sisters and I. My sisters are older than me. The oldest one lives in Rome and is studying at La Sapienza University. The other sister works at the supermarket here in Raiano. I am crazy about soccer and I play every day with my friends. I belong to a team that never wins but I still like it.

I train four times a week and I'm very busy but I still find time to study. In my country there are many migrants, many of which are undocumented. Unfortunately many are living in poverty. Since it's very difficult to get a work permit, they often get work selling things on the street. I think it's a very sad situation. Are there many migrants where you live? Where are they from? What do you think about this issue?

Write soon,

Mario

Figure 3. Translation of *Menù*:

The Trattoria Teresa is located in the heart of Abruzzo, 20 km from Teramo.

Those who have the chance to dine there have the opportunity to taste typical traditional Abruzzese cuisine, made of homemade high-quality products.

The menu selection and preparation is carried out by Signora Teresa (from whom the restaurant gets its name) e Chef Luigi who despite his young age is famous throughout the region for winning numerous gastronomy (cooking) contests.

Our spacious locale is well decorated and capable of hosting more than 100 people and is perfect for a romantic dinner or dinner with friends, but also ideal for private parties, business dinners, special events and banquets.

Here is our menu:

Appetizers:

Bruschette

Cold cuts from Abruzzo

Goat ricotta on radicchio

Mozzarella di bufala

Grated and grilled vegetables

First courses:

Figure 4. Translation of *Barack Obama*:

On January 20, 2009, Barack Obama became the 44th president of the United States. In front of a crowd of more than two million people in the over-crowded Mall, the first African- American in control of the most powerful country in the world was sworn in with a solemn atmosphere full of hope.

In his speech, Pres. Obama recognized the changed represented by his presidency remembering that only 60 years ago a person like his father “wouldn't even have been served at the restaurant”. But even though the crowd was full of African-Americans,

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Pres. Obama didn't dedicate much of his speech to this issue. Instead, talking for about 20 minutes and swearing on the same bible used by Abraham Lincoln in his inauguration, Barack Obama emphasized his determination to unite Americans to confront the great economic challenges they are facing and continue the fight against terrorism.

Obama warned that "the problems are serious, and there are many". He admitted that there will be a change of approach from the Bush administration in which the United States were alienated from the sympathy of the world's public opinion. Instead, he will try to forge new relationships extending a hand to moderates in the Islamic world and guaranteeing at the same time a war against terrorists.

Obama still has...